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LADAS & PARRY
5670 WILSHIRE BOULEVARD, SUITE 2100
LOS ANGELES, CA   90036-5679

EXAMINER
LEVITAN, DMITRY

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/827,267	FURUKAWA ET AL.
	Examiner	Art Unit	
	Dmitry Levitan	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- . - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>14 September 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *381-386,392-394,398-400,402-406,413,415,419-434,448-450 and 453* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *381,383-386,392-394,398-400,402-406,413,415,419-434,448-450 and 453* is/are rejected.

7)☒ Claim(s) *382* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Amendment, filed 09/14/06, has been entered. Claims 381-386, 392-394, 398-400, 402-406, 413, 415, 419-434 and 448-450 and 453 remain pending.

Claim Objections

In light of Applicant's amendment, the objections to the claims have been withdrawn.

Claim Rejections - 35 USC § 112

1.   Claims 381-386, 392-394, 400, 402-405, 415, 419-429, 434, 448-450 and 453 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

2.   Claims 381, 402, 429, 434 limitations "an IP communication line" is unclear, because the communication line is typical for PSTN or other non-packet networks and it is unclear what is communication line within a packet network.

3.   Claim 400 is unclear, because it is incomplete, as the connection/relation of the claimed LAN to the IP transfer network of parent claim 381 is missing.

4.   Claim 400 limitation "a telephone connected to a media router provided in a LAN having a telephone number of a public switched telephone network; a combination of an address telephone number and a transfer gateway telephone number is set in a transfer processing unit of a switching machine" is unclear as written.

5.   Claims 448 limitations "said network node apparatus respectively have two or more logical terminals, said network node apparatus are connected to terminals for communicating by

using an external packet via one of said logical terminals," are not understood, because it is

unclear how all the terminals and nodes are connected and related to the network.

Claim Rejections - 35 USC § 103

1.   Claims 381, 384-386 and 406 are rejected under 35 U.S.C. 103(a) as being unpatentable

over White (US 6,069,890) in view of Edholm (US 6,449,269) and Black (ISDN and SS7,

Prentice Hall, 1997, pages 223-248).

White substantially teaches the limitations of the claims:

White teaches terminal-to-terminal communication control method with IP network (IP

based telephone system on Fig. 4 and 4:5-25), comprising call set (telephones 100 and 118 on

Fig. 4 and 8:21-44), call reception, process and response carried in the IP network (steps 126-160

VoIP telephone process, shown on Fig. 5) and a service phase comprising release and release

completion (inherently part of any telephone call, because at the end of the call the used

connection is released) and a record including a telephone number, a communication start and

end (billing according the time used 4:19-25 and distance, inherently utilizing an originator

telephone number, as all telephone billing is done according the originator telephone number).

White also teaches using SS7 signaling to set up and release calls through IP network (using

Common Channel Interoffice Signaling (CCIS) through STP 80 as shown on Fig. 2 and 5:8-5:36.

SS7 is known as a current version of CCIS, utilizing Signaling Transfer Points STP).

White does not teach call sets directly receiving IP packets and using IAM, ACM, CPG, ANM,

REL and RLC messages and using User to Network Interface (UNI) and Network to Network

Interface (NNI).

Black teaches using IAM, ACM, CPG, ANM, REL and RLC messages for an ISDN call

set up and release process in SS7 environment, including User to Network Interface (UNI),

Network to Network Interface (NNI) on pages 223-248 and circuit identification code (CIC),

shown on Fig. 13-3 - 13-7, as a parameter of IAM, ACM, ANM, REL and RLC, and disclosed

on page 233.

Edholm teaches telephone sets directly receiving and transmitting IP packets (IP

telephones 100 directly connected to Internet 130 on Fig. 1 and 4:20-30 and equipped to transmit

and receive IP packets).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to add using IP telephones of Edholm and IAM, ACM, CPG, ANM, REL and RLC

messages and User to Network Interface (UNI), Network to Network Interface (NNI) and circuit

identification code (CIC) of Black to the system of White to reduce the cost of telephone calls by

utilizing IP telephones directly connected to Internet and improve the system operation with set

up and release of an ISDN call with SS7 signaling in IP environment, as shown diagrammatically

162 and 164 on Fig. 4 and 10:4-12.

In addition, regarding claim 381, Black teaches connection management operation,

shown on Fig. 13-2 Example of ISDN/SS7 call including the call termination process, pages 226-

237.

In addition, regarding claims 384-386, White teaches transmitting voice, data and video through IP network 3:10-24.

2.   Claims 393 and 394 are rejected under 35 U.S.C. 103(a) as being unpatentable over White in view of Edholm and Black in view of Voit (US 6,104,711).

3.   Regarding claim 393, White in view of Edholm and Black substantially teaches the limitations of the claims (see claim 381 rejection above).

White in view of Edholm and Black does not teach voice and image apparatus indirectly connected to a network node, which inquires a host name of other voice and image apparatus to establish a call between them.

Voit teaches voice and image apparatus 1 (Personal computer 35 on Fig. 1 and 7:20-50, wherein PC 35 comprises voice communication capabilities, utilizing microphones and speakers and image capabilities, utilizing PC monitor), which is indirectly connected to a network node apparatus (PC 35 is indirectly connected through internet server 33 to one of inherent Internet nodes, because Internet comprises numerous nodes, shown on Fig. 1) inquires a host name of voice and image apparatus 2 (computer 21 with voice capabilities 7:40-50 and monitor) to an IP image dedicated domain name server inside an IP network (utilizing translation tables of domain name server 51 on Fig. 1 and 9:5-40) via a media router 1 (internet access server 33 on Fig. 1 and 7:51-8:2) and obtains IP address of said voice apparatus 2 (computer to computer call process to obtain the computer IP address 10:20-39), then said voice and image apparatus 1 sends voice data to said voice and image apparatus 2 via media router 1, the IP network and said media router 2 (internet access server 27 on Fig. 1), to carry out a voice communication between apparatuses 1 and 2 (establishing a call from an ordinary phone to a computer 16:34-45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add teachings of Voit, disclosed above, to the system of White in view of Edholm and Black to improve the system operation with establishing connections between two apparatuses.

4.   Regarding claim 394, White in view of Edholm and Black substantially teaches the limitations of the claims (see claim 381 rejection above).

White in view of Edholm and Black does not teach voice and image apparatus directly connected to a network node, which inquires a host name of other voice and image apparatus to establish a call between them.

Voit teaches voice and image apparatus 1 (Personal computer 35 on Fig. 1 and 7:20-50, wherein PC 35 comprises voice communication capabilities, utilizing microphones and speakers and image capabilities, utilizing PC monitor), which is directly connected to a network node apparatus in said IP network (PC 35 is directly connected to a network node: Internet server 33 as shown on Fig. 1) inquires a host name of voice and image apparatus 2 (computer 21 with voice capabilities 7:40-50 and monitor) to an IP image dedicated domain name server inside an IP network (utilizing translation tables of domain name server 51 on Fig. 1 and 9:5-40) via a media router 1 (internet access server 33 on Fig. 1 and 7:51-8:2) and obtains IP address of said voice apparatus 2 (computer to computer call process to obtain the computer IP address 10:20-39), then said voice and image apparatus 1 sends voice data to said voice and image apparatus 2 via media router 1, the IP network and said media router 2 (internet access server 27 on Fig. 1), to carry out a voice communication between apparatuses 1 and 2 (establishing a call from an ordinary phone to a computer 16:34-45).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to add teachings of Voit, disclosed above, to the system of White in view of Edholm

and Black to improve the system operation with establishing connections between two

apparatuses.

5.   Claim 383 is rejected under 35 U.S.C. 103(a) as being unpatentable over White in view

of Edholm and Black in further view of Miller (US 6,987,781).

White in view of Edholm and Black substantially teaches the limitations of claims 383 (see claim

381 rejection above).

White in view of Edholm and Black does not teach using communication records including CIC

for charging purposes.

Miller teaches using communication records including CIC for charging purposes

(method, directed to using CIC code for generating usage and measurement data and billing data,

disclosed on 4:55-5:53).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to add using communication records including CIC for charging purposes of Miller to

the system of White in view of Edholm and Black to improve the system accounting.

6.   Claim 392 is rejected under 35 U.S.C. 103(a) as being unpatentable over White in view

of Edholm and Black.

White in view of Edholm and Black substantially teaches the limitations of claim 392 (see claim

381 rejection above).

White in view of Edholm and Black does not teach media router as CATV gateway.

Official notice is taken that CATV gateway connected to IP network is well known in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to add using media router as CATV gateway to the system of White in view of

Edholm and Black to improve the system operation with CATV systems, by adding an important

feature to the system.

7.   Claims 419, 430, 431 and 432 are rejected (as best understood) under 35 U.S.C. 103(a) as

being unpatentable over Farris (US 6,195,425) in view of Black (ISDN and SS7, Prentice Hall,

1997, pages 223-248).

8.   Regarding claims 419, 430 and 431, Farris substantially teaches the limitations of the

claims:

a terminal to terminal communication control method with employment of an IP transfer network

(telephone A to telephone B communication control method, shown on Fig. 11, wherein the

telephones are communicating through Internet 216, an IP network, 22:12-62), wherein:

        a communication IP line for a telephone communication connection control is separated

from voice communication IP line (utilizing out of band signaling SS7 through IP network, as

shown on Fig. 11, wherein a voice channel and a signaling channel are separate 7:53-8:52)

between a termination gateway and relay gateway, both gateways comprising connection servers

(gateways, shown on Fig. 11, termination gateway SP 200, comprising connection server 218,

for telephone A and relay gateway SP 202, comprising a connection server 220, for telephone B,

as connection servers comprise routing capabilities disclosed in the dialing of a typical call

23:14-24:14); and

        a telephone communication is carried out between two telephone sets via a telephone set

1 (telephone A), a termination gateway (SP 200), an internal IP communication line in the IP

network (Internet route for call messages 23:14-24:14), a relay gateway (SP 202), interface

communication line (interface between the network nodes, inherently part of any network), a

public switched telephone network (Local exchange carrier LECs on Fig. 11 and 22:12-22) and

telephone set 2 (telephone B).

Farris does not teach interface communication line as Network to network Interface

(NNI) and using a circuit identification code (CIC) for communication control.

Black teaches interface communication line as Network to network Interface (NNI) to

connect nodes of a network on page 223 and circuit identification code (CIC), shown on Fig. 13-

3 - 13-7, as a parameter of IAM, ACM, ANM, REL and RLC, and disclosed on page 233.

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to add interface communication line as Network to network Interface (NNI) and a

circuit identification code (CIC) for communication control of Black to the system of Farris to

implement ISDN calls in SS7 environment, making the system compatible with widely used and

popular ISDN standard.

In addition, regarding claims 430 and 431, Farris teaches two public networks LECs on

Fig. 11, one comprising telephones A and B, and other comprising telephone D, two gateways,

as disclosed above, terminating telephone B and telephone D 24:1-14, wherein the gateways

belong/connected to the Internet 216 as shown on Fig. 11.

9.   Regarding claim 420, Farris teaches gateways comprising servers inherently comprising a

relay control units and a voice control units, because these units are essential for the system

operation as described above. Black inherently teaches using CIC tables, because the tables

directed to the CIC parameters on the set up circuits, including set up information, are essential

for the system operation as disclosed by Black on page 233.

10.   Regarding claims 421-423, Farris teaches router/controller 250 retrieving stored data

tables including a signaling point address a telephone number of the destination (router/controller

250 retrieving access data tables, comprising information sufficient for completing the phone

call, inherently including a signaling point address a telephone number of the destination,

because this information is essential for the call completion 23:50-60).

Farris does not teach the router/controller 250 as a portion of the relay control unit located at

each relay gateway.

 It would have been obvious to one of ordinary skill in the art at the time the invention was made

to include the functions of central router/controller 250 in each relay gateway to increase

reliability of the system, by using multiple controllers.

11.   Regarding claims 424-428, Farris teaches a gateway(as disclosed above) inherently

including a voice control unit, comprising conversion operation of the voice signals into IP

packets, wherein the IP addresses are provided by the gateway connected to the public network

(LEC shown on Fig 11), because the conversion into IP packets and IP addresses are essential for

the system operation to provide telephone service through Internet.

12.   Regarding claims 432 and 433, Farris substantially teaches the limitations of the claims

(see claims 419, 430 and 431 rejection above).

        Farris does not teach setting up and interrupting telephone calls comprising IAM, ACM,

CPG, ANM, REL and RLC messages.

Black teaches setting up and interrupting telephone calls comprising IAM, ACM, CPG,

ANM, REL and RLC messages (connection management operation shown on Fig. 13-2,

comprising IAM, ACM, CPG shown as CP, ANM, REL and RLC messages used for ISDN call

set up and disconnection, disclosed in details on pages 224-236.

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to add ISUP messages and operations of ISDN and SS7 call set up and disconnection

of Black to the system of Farris to make the system compatible with widely used and popular

ISDN and SS7 standards.

Regarding claim 433, Farris in view of Black does not teach omitting release complete

RLC message.

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to omit release complete RLC message in the system of Farris in view of Black to

increase the speed of the system, by eliminating a period of time spent waiting for the

confirmation message RLC and open a new connection earlier.

13.   Claims 398 and 399 are rejected (as best understood) under 35 U.S.C. 103(a) as being

unpatentable over Voit (US 6,104,711) in view of Champa (US 6,934,278) and Black.

14.   Regarding claims 398 and 399, Voit substantially teaches the limitations of claims:

A terminal to terminal communication connection control method with an IP network

(communication system shown on Fig. 1 and 6:53-67 and 8:3-45, wherein IP network is Internet

31), wherein:

Voice and image apparatus 1 (Personal computer 35 on Fig. 1 and 7:20-50, wherein PC 35

comprises voice communication capabilities, utilizing microphones and speakers and image

capabilities, utilizing PC monitor), which is indirectly connected to a network node apparatus

(PC 35 is indirectly connected through internet server 33 to one of inherent Internet nodes,

because Internet comprises numerous nodes, shown on Fig. 1) inquires a host name of voice and

image apparatus 2 (computer 21 with voice capabilities 7:40-50 and monitor) to an IP image

dedicated domain name server inside an IP network (utilizing translation tables of domain name

server 51 on Fig. 1 and 9:5-40) via a media router 1 (internet access server 33 on Fig. 1 and 7:51-

8:2) and obtains IP address of said voice apparatus 2 (computer to computer call process to

obtain the computer IP address 10:20-39), then said voice and image apparatus 1 sends voice

data to said voice and image apparatus 2 via media router 1, the IP network and said media

router 2 (internet access server 27 on Fig. 1), to carry out a voice communication between

apparatuses 1 and 2 (establishing a call from an ordinary phone to a computer 16:34-45).

Voit does not teach using the system for image/video transmission and H323 termination

units and using a circuit identification code (CIC) for communication control.

Champa teaches using Internet for video transmission (communication over Internet on

Fig. 3 including multimedia interface with video signal interface shown on Fig. 4 and 5 4:36-50)

and H323 termination units (multimedia interface 110, comprising IP telephone gateway 116 on

Fig. 4, including H323 voice packetizer 156 on Fig. 5 and 5:5-45).

Black teaches using circuit identification code (CIC), shown on Fig. 13-3 - 13-7, as a

parameter of IAM, ACM, ANM, REL and RLC, and disclosed on page 233.

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to add using the system for image transmission of Champa and using circuit

identification code (CIC) of Black to the system of Voit to add an important and popular feature

to the system and make system compatible with a well known SS7 standard.

In addition, regarding claim 398, Voit teaches an IP terminal and a dependable type of IP

telephone connected via communication line to first/second gateway (computer 21 and a voice

telephone related portion of the computer comprising microphone 23 and speaker 25 on Fig. 1

and 7:41-55 connected to internet access server 27 through a dial-up connection Fig. 1 and 7:55-

62) to establish terminal to terminal communication (communication between PC 21 and similar

PC 35 on Fig. 1 and 7:52-67).

Regarding claim 399, Voit teaches a plurality of gateways provided with interface

functions that can be adapted to various sorts of telephone communication procedures (Internet

servers comprises modem, ISDN or LAN interfaces for two-way communication over Internet

7:1-17).

15.   Claims 402, 403, 413, 415, 434, 448-450 and 453 are rejected (as best understood) under

35 U.S.C. 103(a) as being unpatentable over White in view of Reshef (US 6,321,337) and Black.

16.   Regarding claims 402, 413, 434 and 448 White substantially teaches the limitations of

claim 434, comprising a terminal to terminal communication control through an IP network

telephone sets 100 and 118 connected to respective routers/gateways 104 and 116 on Fig. 4,

encapsulating voice call data into an IP packet with an external address (obtaining an IP address

and establish Internet connection 8:35-67) and controlling the telephone communication,

including inherent connection release, by keeping the record of telephone connections for the

purpose of billing (timed based billing, inherently comprising a connection start time and release

time to identify the equipment used time 10:10-20).

White does not teach adding an internal address to the packet at the logical terminal

connected to the router by an IP communication line and keeping the external and internal

addresses in an address management table inside the logical terminal and using circuit

identification code (CIC).

Black teaches using circuit identification code (CIC), shown on Fig. 13-3 - 13-7, as a

parameter of IAM, ACM, ANM, REL and RLC, and disclosed on page 233.

Reshef teaches adding an internal address to the packet at the logical terminal (inherently

part of the system, because Reshef teaches wrapping the outgoing messages from external

network 16 in security gateway 10 on Fig. 1b into respective native protocols 9:11-65, including

IP) connected to the router by an IP communication line (lines 22 on Fig. 1b and 7:43-46) and

keeping the external and internal addresses inside the logical terminal (inherently part of the

system, because keeping the external and internal addresses is essential for the protocol

conversion to ensure two way communication 9:10-65).

Official notice is taken that keeping the addresses in a management table is well known

in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to add an internal address to the packet at the logical terminal connected to the router

by an IP communication line and keeping the external and internal addresses inside the logical

terminal of Reshef, using circuit identification code (CIC) of Black and using a table for the

addresses to the system of White to improve the system security by creating a secure internal

environment and making system compatible with well known standard.

In addition, regarding claims 402 and 448, Reshef teaches internal network as an IP

network 9:10-25, and encapsulating/decapsulating the packets from the internal network as

shown as encapsulating and decapsulating steps on Fig. 3b and 12:62-13:25.

In addition, regarding claim 413, White teaches communicating between the Autonomous

Systems of companies as shown on Fig. 1 and 1:50-2:15).

17.   Regarding claims 403 and 415, White teaches a system comprising Internet address data

base/server 112 on Fig. 4 for providing IP addresses in response to the dialed phone number

(9:10-32) and server 112 as domain name server.

18.   Regarding claim 449 White teaches a system wherein the connection phase is based on

common channel signaling (common channel signaling portion of SS7 system, utilizing

SSP(service switching point) capabilities in the gateway routers 9:65-10:20) including an address

completion message (inherently part of the system, because SS7 protocol, utilized in the system

of White, comprises an address completion message).

19.   Regarding claims 450 and 453 White teaches a system wherein said call connection

phase/call setting includes a answer/response confirmation message (caller is requested to

confirm billing charges in response to the VRU request 17:57-18:11).

20.   Regarding claim 404, White teaches setting the call by transmitting IP packet comprising

a destination telephone number (9:37-41).

White does not teach transmitting the source phone number in the IP packet.

It would have been obvious to one of ordinary skill in the art at the time the invention was made

to add the source phone number to the IP packet of the system of White in view of Reshef to

simplify a response from the called side when the called phone is busy, as the busy signal is

delivered to the calling telephone 100 (9:51-58).

21.   Claim 405 is rejected under 35 U.S.C. 103(a) as being unpatentable over White in view

of Reshef and Black in view of Tonnby (US 6,295,293).

White in view of Reshef and Black substantially teaches the limitations of claim (see claims 402

and 404 rejections above).

White in view of Reshef and Black does not teach identifying each telephone with a port

number and using this number in an IP packet for each of the telephones.

Tonnby teaches identifying each telephone with a port number and using this number in

an IP packet for each of the telephones (identifying telephones, connected to network terminal 28

on Fig. 7 using the appropriate port number 5:55-6:35).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to identifying each telephone with a port number and using this number in an IP

packet for each of the telephones of Tonnby to the system of White in view of Reshef and Black

to improve the system operation with multiple telephones connected to the same terminal.

22.   Claim 429 is rejected (as best understood) under 35 U.S.C. 103(a) as being unpatentable

over Kung (US 6,252,952) in view of Nelson (US 6.628,644).

Kung substantially teaches the limitations of the claim:

A termination gateway (IP central station 200 and administration center 155 on Fig. 1 and

2, 5:30-65) wherein:

Said gateway includes a relay control unit (portions of IP central station 200 and

administration center 155 on Fig. 1 and 2) and a network apparatus (IP central station 200 and

administration center 155 on Fig. 1 and 2 inherent interfaces with IP network 120 as shown on

Fig. 1 and 2, because IP interfaces are essential for the system interaction with IP networks);

Said relay control unit includes a telephone administration server (system management

server 216 on Fig. 2 and 8:15-27), a telephone number server (call manager server 218

comprising a customer data base with telephone numbers 10:54-67), a connection server (least

cost server 255 providing the least cost connections 6:60-65), and a table administration server

(DNS server 214, assigning IP addresses to activated devices, inherently creating tables to

correlate devices with their IP addresses 7:25-60); and

Among IP packets entered from an external line to the network node apparatus, a

telephone call control packet is transferred to the relay control unit (IP packets from IP network

120 entering administration center 155 through an external line shown on Fig. 1 and 5:47-53)

and a voice IP packet is branched to a voice IP communication line (voice IP packets are directed

to a line connecting central router 210 with IP network 120 as shown on Fig. 2).

Kung does not teach gateway as two separate devices: network node and relay control unit.

Nelson teaches two separate units IP telephone 22 and call manager 26 operating

together, as shown on Fig. 1 and 3:5-20, wherein IP telephones comprise encapsulation and

decapsulation functions and call manager controls the IP telephones.

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to separate gateway of Kung into two separate devices as network node and relay

control unit as of Nelson to improve the system maintainability by segregating two different

functions of the gateway as encapsulation and management into network node and relay control

unit.

Allowable Subject Matter

23.   Claim 382 would be allowable if rewritten to overcome the rejection(s) under 35

U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of

the base claim and any intervening claims.

Response to Arguments

24.   Applicant's arguments filed 09/14/06 have been fully considered but they are not

persuasive.

On pages 17-19 and 22 of the Response, Applicant argues that communication line is commonly

used in packet networks, making the limitation "IP communication line" clear.

Examiner respectfully disagrees.

Communication line is well known in circuit networks. However, even in the circuit

networks, term communication line is considered confusing (Newton"s Telecom Dictionary,

2004, page 481) and clearly directed to only circuit networks, interpreting it as two wires, a loop

or a trunk.

Therefore using the term communication line in packet network is confusing and inappropriate,

as communication between nodes in the packet network is achieved by using routing tables,

routing paths or tunnels, typical for packet networks.

Applicant mentioned granted patents, comprising communication line in packet

networks, on page 18, but failed to provide their numbers. Therefore, Applicant's arguments,

directed to the use of the term in the granted patents are irrelevant, because it is not known how

the term communication line is disclosed and used in the patents.

On pages 23-26 of the Response, Applicant argues that claims limitations directed to using a

circuit identification code (CIC) is missing in the cited prior art, making the claims allowable.

Examiner respectfully disagrees.

Black clearly teaches using circuit identification code (CIC) to carry out communication control,

shown on Fig. 13-3 - 13-7, as a parameter of control messages IAM, ACM, ANM, REL and

RLC, and further disclosed on page 233. See the appropriate claims rejection above.

On page 26 of the Response, Applicant argues that White and Reshef lack limitations of claim

448, directed to connection phase, communication phase, registers with telephone numbers and

communication start/end time, making claim 448 allowable.

Examiner respectfully disagrees.

White clearly discloses a connection phase, which starts with the user going of hook and dialing

the number and ends with connecting to a called telephone, 8:21-44.

White inherently teaches a communication phase, because the purpose of any telephone call is

communication.

White inherently teaches registers comprising telephone number and communication start and

end time, because these items are essential for the billing purposes, disclosed on 10:10-20.

On page 27 of the Response, Applicant argues that claim 429 is allowable, because Kung does

not teaches limitations as in currently amended claim 429.

Examiner respectfully disagrees.

Kung clearly teaches the cited claim 429 limitations, as shown above in the claim 429 rejection

of this Office action.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The

examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Doris To can be reached on (571) 272-7529. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

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information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dmitry Levitan
Examiner
Art Unit 2616